

We claim:

1. A boom structure of a construction machine, comprising:
a boom having a curvilinear portion bending in a longitudinal direction of said boom, wherein a tubular member which forms one or more of corners of a generally rectangular section in said curvilinear portion, said tubular member having a closed section.
2. The boom structure according to claim 1, wherein said curvilinear portion is positioned contiguously between a first and a second straight portion in the longitudinal direction of the boom.
3. The boom structure according to claim 1, wherein said tubular member has a flat portion extending in the longitudinal direction of the boom.
4. The boom structure according to claim 1, wherein said generally rectangular section is formed by a part of an outline of said tubular member and a welded member welded to said tubular member, said welded member having a flat plate portion extending in the longitudinal direction of the boom, ends of said flat plate portion being welded to bent portions of said tubular member other than said corners.
5. The boom structure according to claim 1, wherein said tubular member is disposed on each of upper and lower sides of said generally rectangular section so that the tubular member forms two of said corners.
6. The boom structure according to claim 5, wherein a recess depressed inwards of said tubular member is formed inside of said generally rectangular section.
7. The boom structure according to claim 1, wherein said tubular member

is disposed at each of the corners of said generally rectangular section so that the tubular member constitutes each of said corners respectively.

8. The boom structure according to claim 4, wherein each stepped portion depressed inwards of said tubular member is formed in said bent portions and said ends of said flat plate portion are welded to said each stepped portion.

9. The boom structure according to claim 2, wherein said first straight portion is positioned on a front end side of the boom to which an arm is attached, said second straight portion is positioned on a support side of the boom which is supported by a construction machine body, and said tubular member comprises a first tubular member disposed on an upper side of said generally rectangular section and extending from said curvilinear portion to said second straight portion and a second tubular member disposed on a lower side of said generally rectangular section and extending from said curvilinear portion to said first straight portion.

10. The boom structure according to claim 1, wherein said tubular member is one of a seamless steel pipe and an electroseamed steel pipe.

11. A boom structure of a construction machine, comprising:

a boom having a hollow section, said boom having a curvilinear portion bending in a longitudinal direction of said boom and being formed by welding of plural boom members, corners of a generally rectangular section in said curvilinear portion being formed by bent portions of said boom members; and

a reinforcing member which is fixed to each of said boom members so

as to form a closed section conjointly with one or more of said corners of said generally rectangular section.

12. The boom structure according to claim 11, wherein said curvilinear portion is positioned contiguously between a first and a second straight portion in the longitudinal direction of said boom.

13. The boom structure according to claim 11, wherein said boom members which form said corners of said generally rectangular section are L-shaped members having a generally L-shaped section.

14. The boom structure according to claim 11, wherein said boom members which form said corners of said generally rectangular section are horseshoe members having a generally horseshoe section.

15. The boom structure according to claim 11, wherein said reinforcing member is mounted so as to form a closed section conjointly with one of said corners.

16. The boom structure according to claim 11, wherein said reinforcing member is disposed inside said generally rectangular section.

17. The boom structure according to claim 11, wherein said reinforcing member is disposed outside said generally rectangular section.

18. The boom structure according to claim 11, wherein said reinforcing member is mounted so as to form a closed section conjointly with two of said corners.

19. The boom structure according to claim 11, further comprising:

side plate disposed between said boom members which form said corners, said side plate being thinner than each of said boom members.

20. A method for manufacturing a boom structure of a construction machine, comprising the steps of:

passing a circular pipe through profile rolls to form a deformed pipe;

forming a bent portion in a longitudinal direction of said deformed pipe at the time of forming the deformed pipe; and

welding a member having a flat plate portion to said deformed pipe to form a boom structure having a generally rectangular section,

wherein said bent portion of said deformed pipe is positioned at corners of said generally rectangular section, and said boom structure has, in its longitudinal direction, a first straight portion to which an arm is attached, a curvilinear portion contiguous to said first straight portion and including said bent portion of said deformed pipe, and a second straight portion contiguous to said curvilinear portion and supported by a construction machine body.